APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,556	01/11/2002	Roy Frank Brabson	RSW920010159US1	1822

			EXAMINER
7590	12/29/2005		CHANKONG, DOHM

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ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 October 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21 and 23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21, 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1>   This action is in response to Applicant's amendment and arguments, filed 10.25.2005.

Claims 1-21 and 23 are presented for further examination.

2>   This is a final rejection.

Response to Arguments

3>   Applicant's arguments have been fully considered but they are not persuasive.

Additionally, Applicant's amendments do not substantially distinguish the present invention

over the prior art references. The amended claims are now directed in part towards

"determining at a currently-executing application, based on the analysis, whether the

currently-executing application should modify a behavior of the currently executing

application".

Rejection of claims 1 and 23 [as anticipated by Buhrke]

4>   As set forth in the previous action, the prior art reference, Buhrke, provides a system

for bandwidth and congestion management for terminals (currently-executing application)

that are connected to switches. Applicant argues here that Buhrke's determination

functionality is located at the switch, and not the currently-executing application, as

represented by Burke's terminal [see Applicant's arguments, page 7].

Applicant's characterization of Buhrke is not entirely accurate. The determination of

whether the application should be modified takes place in both the terminal application and

the switch [see Figure 2 | column 6 «lines 21-26»]. That is, the switch returns a proposed

bandwidth estimate to the terminal [Figure 2 «item 216»]. This proposed estimate is part of

the analysis process; the terminal application then goes about determining whether or not to

accept the proposed terms from the switch [Figure 2 «items 208, 214»]. If the terminal

application accepts, the applications behavior is modified using the new bandwidth terms.

Applicant also discusses various features of the present invention, and in particular,

points out the invention "may do away with Buhrke because the 'quality of service' may be

determined by the application itself without any interaction with a switch" [see Applicant's

arguments, page 7].

It should be noted that the claims do not represent this assertion. The amended claims

merely disclose that there is a determination step performed at a currently-executing

application and does not explicitly claim against interaction with another device as part of

the determination process. The claims merely disclose that a determination must take place

at the currently-executing application, as it does in Buhrke; Buhrke's use of a switch as part

of the determination process is not precluded by the claim language.

Rejections of dependent claims [Buhrke]

5>   Contrary to Applicant's arguments of claims 3 and 6, Buhrke discloses the terminal

may modify its behavior by alternating sending "empty" (zero-length) cells then regular

length cells based on network conditions [column 4 «lines 14-23»] thereby teaching a

reduction or increase in the length of the cell.

6>   In regards to Applicants arguments of claims 4 and 7, as discussed by Applicant in his

remarks, Buhrke discloses negotiating (reducing or increasing) the rate of transmission

between the terminal application and the switch. The impact that the negotiation has on the

terminal application is that a reduction, or increase, in the rate of transmission necessitates a

reduction, or increase, in the rate at which the terminal application may retrieve data.

7>   Contrary to Applicant's arguments of claim 5, Buhrke discloses dropping a virtual

connection with the terminal application [column 6 «line 42-45»].

8>   Contrary to Applicant's argument of claim 9, Buhrke discloses the terminal

application changing the use of one or more virtual channels [column 6 «lines 55-60»].

Rejection of independent claims [as anticipated by Yamato]

9>   Applicant asserts in substance similar arguments as was seen in the Buhrke rejection.

In particular, Applicant asserts that the present invention "may do away with the need for

Yamato's cell traffic regulation unit" [Applicant's arguments, page 9]. However, it seems the

basis of the rejection was that Yamato's cell traffic regulation unit corresponds with claimed

"currently executing application".

Here, Applicant's amendment also does not substantially distinguish the invention

over Yamato's invention. The determination step of modifying the cell traffic regulation

unit's behavior is done at the regulation unit itself [column 8 «lines 42-60»].

10>   Based on the preceding remarks, Applicant's arguments are not persuasive, and the

prior art rejections set forth in the previous action, filed 7.25.2005, are maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or
> on sale in this country, more than one year prior to the date of application for patent in the United States.

11>   Claims 1- 7, 9-12, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by

Buhrke et. al. (US 5,280,470).

12>   <u>In regards to claim 1 and 23</u>, Buhrke et al. discloses a method of improving traffic

management in a network, comprising steps of:

    a.   detecting a changed environmental condition (e.g. virtual channel request- col.

5 ll. 1-3, establishment of virtual channel, col. 5 ll. 34, rate of active cells- col. 5 ll. 35);

    b.   generating notification of the detected condition (e.g. message with number of

channels – col. 5 ll. 11-12, load reduction request- col. 5 ll. 37, column 6 «lines 21-26»)

    c.   analyzing the generated notification by consulting one or more criteria (e.g.

analyses whether value of N_1/N_2 is acceptable- col. 5 ll. 20-21, analyzes load reduction

request -col. 5 ll. 35)

d.   determining, at a currently executing application, based on the analysis,

whether the currently executing application should modify a behavior of the

currently-execution application (e.g. determining whether to accept or reject number

of channels col. 5 ll. 20-24, determining whether to increase or decrease a factor col. 5

ll. 44-46)

13>   In regards to claim 2, Buhrke et al. discloses the method according to claim 1, further

comprising the step of modifying, by the currently-executing application, the behavior of the

currently executing application (e.g. modifying the request levels col. 5 ll. 20-24, reducing or

increasing the factor col. 5 ll. 44-46, column 6 «lines 21-26» - reducing bandwidth)

14>   In regards to claim 3, Buhrke et al. discloses the method according to claim 2, wherein

the modification comprises reducing the size of one of more data objects generated by the

currently executing application [e.g. reduce rate of cells, lower bucket, reduce bandwidth

virtual channel col. 5 ll. 35-400, col. 6ll-20 & column 4 «lines 17-19»].

15>   In regards to claim 4, Buhrke et al. discloses the method according to claim 2 wherein

the modification comprises reducing data retrieval by the currently-executing application

(e.g. decreasing the N_2 factor col. 5 ll. 46-47)

16>   In regards to claim 5, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises dropping one or more connections with the currently executing application (e.g. disconnection of a virtual channel, col. 6 ll. 33-49)

17>   In regards to claim 6, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises increasing a sized of one of more data objects generated by the currently-executing application (e.g. increasing the number of virtual channels, hence increasing the load col. 6 ll. 2-8).

18>   In regards to claim 7, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises increasing data retrieval by currently-executing application (e.g. increasing the N1 Factor col. 5 ll. 44-47).

19>   In regards to claim 9, Buhrke et al. discloses the method according to claim 2, wherein the modification comprises changing the currently-executing applications use of one or more other applications (e.g. execution of a slow down process col. 6 ll. 55-60).

20>   In regards to claim 10, Buhrke et al. discloses the method of claim 1, wherein the changed environmental condition (e.g. virtual channel exceeds rate-col. 6 ll. 34-35) pertains to system-related conditions (e.g. switch detection of excess rate col. 6 ll. 33-40).

21>   In regards to claim 11, Buhrke et al. discloses the method of claim 1, wherein the

changed environmental condition pertains to network related conditions (e.g. detecting load

on the network col. 34-47).

22>   In regards to claim 12, Buhrke et al. discloses the method of claim 1, wherein

environmental condition (e.g. pertains to client related conditions in one or more clients ,

(terminal, switch) of the currently executing application (col. 34-47)

23>   Claims 1 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamato

et al. (US 5,835,484).

24>   In regards to claim 1 , Yamato et al. discloses a method of improving traffic

management in a network, comprising steps of:

       a.   detecting a changed environmental condition (e.g. detecting violations in

       environment, congestion state col. 6 ll. 30-35, col. 6 ll. 45-55, col. 12 ll. 15) ;

       b.   generating notification of the detected condition (e.g. notify of violation col.

       12 ll. 17-19, col. 12 ll. 59-60)

       c.   analyzing the generated notification by consulting one or more criteria

       (analyzing and consulting monitoring parameters, col. 12 ll. 1. 33-39)

       d.   determining, at a currently executing application, based on the analysis,

       whether the currently executing application should modify a behavior of the

currently-execution application (e.g. determination to modify application monitoring

parameters col. 12 ll. 34-40).

25>   In regards to claim 13, Yamato et al. discloses the method according to claim 1. Burke

is silent on herein the changed environmental condition occurred internally in to a system in

which the currently executing application is executing (col. 7 ll. 40-45, system of fig 1).

26>   In regards to claim 14, Yamato et al. discloses the method according to claim 13

wherein the generated notification pertains to a condition of a local network protocol stack (

condition indicator within a payload field of a header-31 where the indicator is used to

determine existence of condition; if condition exists a notification is sent col. 7 ll. 20-39, col. 8

ll. 10-15,abs).

27>   In regards to claim 15, Yamato et al. discloses the method according to Claim 13,

wherein the generated notification pertains to a condition of the system in which the

currently executing (execution of a program for monitoring connection-121, col. 5 ll. 53-60)

application is executing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art

are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.   .

28>   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buhrke et. al.

(US 5,280,470) in view of Nahidipour et al. (US 5,983.723)

29>   In regards to claim 8 Buhrke et al. discloses the method according to claim 2.

Buhrke is silent on wherein modification comprises changing thread assignments of the

currently executing application

Nahidipour et al. discloses changing thread assignments (e.g. reducing threads) of a

currently executing application in order to ensures improved data transfer efficiency, lower

utilization of system resources, and memory (col. 5 ll. 45-56.).

It would be obvious to one of ordinary skill in the art at the time of the invention to

modify Buhrke et al. by changing thread assignments (e.g. reducing threads) of a currently

executing application, as taught by Nahidipour et al. in order to ensures improved data

transfer efficiency, lower utilization of system resources, and memory as number of

threads for system calls is reduced (col. 5 ll. 45-56. col. 8 ll. 37-43)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
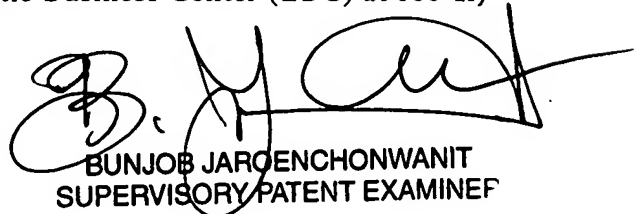
A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dohm Chankong whose telephone number is 571.272.3942.

The examiner can normally be reached on Monday-Thursday [7:00 AM to 5:00 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information

for unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

DC